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Geography  
of Asia  
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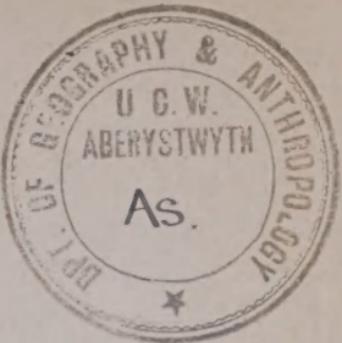
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# NOTES ON THE GEOGRAPHY OF ASIA MINOR

*Prepared on behalf of the Admiralty*



ADMIRALTY WAR STAFF  
INTELLIGENCE DIVISION  
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## NOTE

THE brief description of Asia Minor given in the following pages sets forth in outline the principal geographical features of a region about which comparatively little is generally known and many erroneous notions are current. It will be seen that most of the country has been very little developed on modern lines, and the historical notes on early wars may therefore be of value as illustrating existing conditions.

Detailed information, so far as available, will be issued in a Handbook.

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# ASIA MINOR

## SECTION I. GENERAL FEATURES

### (1) *The Central Plateau and the Coast Lands*

ASIA MINOR is an indefinite geographical name, which came into use in the Dark Ages. It corresponds roughly to the Turkish Anadol (Anatolia), but the latter excludes Karamania, the country south of Taurus, while Asia Minor includes it. Both terms cease to apply east of the Euphrates.

Asia Minor consists of a lofty oblong central plateau, projecting from the main mass of the continent of Asia, together with a fringe of coastland. The plateau is about 3,000 to 4,000 feet above sea-level, interspersed with many lofty, generally conical peaks ; it is a great limestone plateau through which rise volcanic cones ; it is bordered by a rim of mountains which divide it from the coastlands. This mountain rim is usually of considerable breadth and is generally very much broken and cut up by water-courses.

On the west this mountain rim is not so distinctly marked as on the north and south. It is, however, always present, and the traveller has always to ascend to the top of a ridge and descend again some way towards the general level of the main central plateau, but on the whole a great part of the rough mountain region on this side really represents the breaking down of the central plateau towards the coastal plain. The river valleys mark the limits of the plateau proper. Two of the rivers, the Kuchuk Menderez (Kayster) and the Bakir-Chai (Kaikos), obviously rise on the outer edge of the plateau, and their valleys represent arms of the sea-coast region divided from each other by narrow western extensions of the plateau. The other two rivers, the Gediz-Su (Hermus) and the Menderez (Macander), which are much longer, rise far up in the plateau ; but even their upper parts are, as it were,

cracks in which the plateau is beginning to break down towards the sea-coast ; and the bold mountain ridges, Tmolus, Messogis, &c., which divide the western-flowing rivers and usually end in hills that touch the sea, are (so to say) fingers which the plateau is stretching out towards the islands of the Aegean.

The coast valleys on all three sides of the plateau, and their extensions up the course of rivers that come down from the plateau, are extremely fertile, but as a rule are haunted by malarial fever. The less inhabited and the less cultivated each district is on the sea-coast, the more it seems to be the home of this fever. Beside Ephesus, for example, at the lower end of the Kuchuk Menderez, the area of cultivation has been greatly extended during the last forty years, and the result has been that this district is no longer infamous on account of the malaria danger, as it formerly was. It remains, however, very enervating.

The breadth of the coast lands varies very greatly. In some places there is no interval between the mountains and the sea, or only room for a road. In other places the coastal plain is of considerable breadth, as, for example, in Pamphylia on the south and in Bithynia on the north, and the low valleys continue up into the outer edge of the plateau along the course of many small streams and several considerable rivers.

The mountains which edge the plateau on the north possess a character of their own. They lie in a well-marked double ridge, consisting of two chains of mountains roughly parallel to one another, with important river valleys and lines of communication between them. Such are the roads from the Bosphorus by Ismid and Boli to Changri or to Tash-Köprü and on to the East.

By far the most characteristic edge of the plateau is that on the south, formed by the great range of mountains which has been famous under the name of Taurus from the very earliest historical period. Taurus has been always recognized as a political and linguistic boundary, and the countries 'on this side of Taurus' and 'beyond Taurus' have commonly been

separated in government, and probably in the racial character of the inhabitants, from the region of the central plateau.

Taurus is usually called a mountain ridge, but it is really an elevated plateau from 6,000 to 9,000 feet above the sea. In breadth it varies greatly, generally not less than fifty miles, but in some cases much more, according as the mass of the elevated plateau extends outward towards the north or approaches close to the sea on the south. The latter is especially the case in the region between Lycia and Pamphylia, where the mountains rise steep from the water's edge : also in some parts of western Cilicia (Rough Cilicia or Tracheia) the outer edge of the plateau approaches close to the sea.

In this elevated Taurus plateau there is an extraordinary diversity of conformation. In some cases there are very marked continuous high ridges, such as Bulghar-Dagh, which lies on the western side of the ridge leading down from the plateau to Bozanti and extends west and south-west for a considerable distance, till it gradually merges into the main mass of the elevated plateau. In this neighbourhood Taurus seems to run north-east to south-west, but on the north side of Pamphylia the mountain ridges appear to run directly north and south, both on the south side towards the coast and in the northern direction towards the plateau, where the great ridge which is called by the Turks Dipdavras or Dipoiras<sup>1</sup> (8,000 feet or more), on the western side of the Bey-Sheher Lake, seems to be part of a mountain conformation similar to the lofty ridges which divide the valleys of the Pamphylian rivers on the south. Yet, only a little farther to the west, one finds that the ridges of Taurus again resume their general east to west direction.

## (2) *The Two Parts of the Central Plateau*

The central and eastern part of the great plateau is a level plain, but the western part is occupied by what may be called

<sup>1</sup> The second part of Dipdavras seems to be the modern pronunciation of the old name Taurus, with the modern Greek *av* in place of the diphthong ; while Dipoiras looks like an attempt to get a word suggesting a meaning in Turkish, as *poiras* is the ordinary term for 'north'.

the Phrygian mountain region. The latter belongs to the plateau proper, and is clearly distinguished to the traveller from the mountain rim. It extends from about the longitude of Ushak to about thirty miles east of Afion-Kara-Hisar. The mountains which compose it have quite a different character from those of the Taurus region. They are, in general, bare and of no great height above the level of the plateau, and they are varied by wide and very fertile open river valleys. There are, however, several lofty ridges which interpose considerable, indeed almost insuperable, difficulties to direct communication by road: the chief of these is the Sultan-Dagh, which is a sort of axis of the entire region. Its highest peak, south of Chai on the Anatolian Railway, is over 8,000 feet in height.

The distinction between these two parts of the plateau—the western and the eastern—is very important, alike as regards communication and as regards weather.

It is a common error (seen for example in Philippson's useful book, *Das Mittelmeergebiet*) to speak too absolutely about the uniformity of conditions on the plateau. One may rightly contrast the dry plateau with the abundant moisture of the coastal plains and valleys. There is, however, a marked difference between the weather and conditions in general of the Phrygian mountain region and those of the central plain of the plateau. The plain is the most typical part of the plateau, but the Phrygian hills have their own special character.

This great open treeless plain<sup>1</sup> is extraordinarily level. Moltke, who travelled across it a little, speaks of it as the most level plain in the world. The comparison of this plain to the sea suggests itself naturally to many travellers. Moltke uses this illustration in the nineteenth century,<sup>2</sup> and so did Strabo in the time of Christ. The plain is varied by a number of isolated mountains, almost all of which are volcanic cones, rising through the level limestone plateau like islands in the sea. There is, however, an exception to this form of the mountains

<sup>1</sup> It was called Aixylon, woodless, in ancient times.

<sup>2</sup> In his *Letters from Turkey*.

—Boz-Dagh is a bare, comparatively low ridge which runs out from the Phrygian Mountains in a south-easterly direction for about 45 miles, starting immediately south of Ladik and a little to the north of Konia. The height of the passes across the Boz-Dagh is not more than about 500 to 600 feet above the central plateau, and there is one pass between Tutup and Egri-Baiyat which is barely 100 feet above that level. This last pass was chosen by the Ottoman Railway for the line which it projected to Konia, but the German engineers of the Anatolian Railway preferred to cross Boz-Dagh nearer the central Phrygian hills, where it is much higher. The train now crosses this mountain by a series of curves at a very low rate of speed : sometimes the engine is barely able to bring the heavy train up to the top of the ridge. The pass which was preferred by the Ottoman Railway lies about ten miles out towards the south-east, but it presents such advantages for a railway line that one wonders why it was neglected by the German surveyors. Possibly they did not go far enough out from the line of the road to become aware of its existence, but contented themselves with finding a feasible way close at hand. The measured distance is nearly the same ; but the difference in time and ease is considerable. That outlying pass to Egri-Baiyat is so easy that it will some day become important in the road-system when the central plateau is cultivated and developed. It is the line of the modern road from Konia to Angora, and is shown by Roman milestones to have been the ancient road. The village of Egri-Baiyat lies at the south end of the pass ; and the village of Tutup at the north end.

There is a marked difference between the amount and times of rainfall on the central plain and in the Phrygian mountain region, the two diverse parts of the main plateau. The open plain is very dry : not that there is any great lack of moisture on the annual average, but that the moisture falls only in certain seasons and usually in such quantity as to do harm rather than good. On the other hand, the Phrygian mountain region enjoys an abundant rainfall, well distributed over the year and often very heavy. In some parts it may be

called a moist region. To take the two great centres, Afion-Kara-Hisar and Yalovach (Antioch): they both lie near lofty peaks which seem to cause a succession of rain-storms throughout the spring and early summer.

The rain when it falls in May and June is regarded as a god-send to the farmer, but when it falls in July it does harm rather than good, especially if it comes during the opium-gathering, which lasts three days: if any rain falls then, the crop is lost. Twice during the period 1904-12 there has been a wet June on the western plateau. The rain has fallen almost continuously, and during such a June travelling and transport become very difficult and even impossible except to small parties on foot or on horseback. The rains of summer, however, do not extend far out on to the central plain. In such weather on the open plain a wonderful sight may be observed, especially in the evening, when thunder-storms break simultaneously on the mountains to the west and north and south and south-east and the flashes of lightning are almost continuous. In such a case, the weather of the central plain is cold and sunless; and, occasionally, the extreme fringe of a storm reaches out to the plain for an hour or so. In the mountain region, on the contrary, there is nothing but mist and rain throughout the whole time. The peasantry enjoy such a season, as they know it means an excellent harvest. Refugees from Roumelia, who were settled in new villages over the great plain, broke new ground which, apparently, had never been cultivated since the Turkish conquest, and they were seen sowing corn as late as the middle of June. It was remarkable that mosquitoes, which had been entirely unknown in the central plain, immediately followed cultivation, and for one or two years later were troublesome even in this very dry region. On the other hand, drought in May and June implies a bad harvest, whereas a dry April is favourable to the harvest, for the soil then retains in it sufficient moisture from the winter.

The harvest, therefore, is in modern times wholly dependent on the chances of an uncertain rainfall, as no attempt is ever

made to store the water that falls. In ancient times, on the contrary, great attention was paid to the storage of water from winter and spring. Cisterns of large size were cut in the rocks, where rock was available, as in the very dry volcanic region between Kara-Bunar and Kara-Dagh and Karaja-Dagh ; and pieces of ancient terra-cotta piping, evidently used for a water-course, have been offered for sale in a village in the driest part of the plain between Sultan-Khan and Boz-Dagh. Again, there is a great ancient barrage five or six miles east of Qadin Khan, on the Anatolian Railway. Examples like these come before the traveller in many parts of the country. These ancient operations of water-engineering were conducted under religious direction ; their construction and maintenance being prescribed by the goddess through her priests.

In ancient times there was perhaps greater precipitation on the outer or eastern side of the Phrygian mountain region. It is stated on the authority of an engineer in charge of the German irrigation works south and south-west of Konia, that the course of a number of streams which flowed down into the Konia district from the mountain region on the west, and which are now entirely waterless, can be traced. Similarly, in the barrage, which has just been mentioned, on the east edge of these same mountains, no water seems now ever to be caught.

There has been very serious destruction of forests in the mountains ; a process which has been going on through the carelessness and indifference of the semi-Turkish nomads, wherever woods continued to live in the mountain region. In the country south-east of Kutaya, for example, a great forest of fir-trees was killed in the year 1880 by a forest fire. The Yuruk who wishes to get a log of wood burns down a convenient tree, and the fire in dry weather often spreads as far as there are trees to burn. No young trees can live where goats are numerous.

The Kara-Dagh, south-east from Konia, now nearly bare, was once much better wooded. Traces of forest remain, and broken terracing to hold up the water (which now runs down in flood and sometimes overwhelms fields of corn with gravel).

Formerly the roots of the trees detained the water, and the rainfall benefited the country which now it injures. Waste of rain has done much more harm than any possible diminution in rainfall.

In winter the weather is very severe, alike in the Phrygian mountain regions and on the central plain. Snow lies for a considerable time ; and in the year 1907 the snow lay so late and so deep all over the plateau that the great herds of sheep and goats which are fed there suffered severely.<sup>1</sup> It was said that 75 per cent. of the lambs died ; even the storks found that there was nothing to live on, and numbers of storks were seen lying dead here and there over the plains. It was a remarkable fact that in the following year the storks were six weeks late in appearing. There is, however, great variation in the severity of the winter ; and the coming of rain and thaw may take place at any time in the spring, sometimes early, sometimes late. When the spring rains begin, the whole of the plateau becomes impassable owing to the depth of the mud.

### *(3) Communication on the Central Plateau*

In November 1881 it was found that the weather in the Phrygian mountain region, though quite dry, was extremely cold and the country was entirely frozen. On the other hand, in October 1883, rain fell for three weeks heavily and continuously. Differences depend largely on the winds ; the north is dry and cold, while the south brings rain.

In these circumstances the construction of well-built roads, both in the mountain region and the level part of the plateau, assumes great importance. Wheeled traffic can be carried along these roads at any time except when the snow is too deep, but Turkish roads have an annoying habit of breaking off suddenly and leaving the traveller face to face with the natural unbuilt path through the mud. The most important

<sup>1</sup> Basil alludes to one great storm of this kind about A. D. 370, implying that such stormy weather was usual in winter. Strabo alludes to great flocks on the plains in his day.

of these roads is that which connects Konia with Karaman and Eregli on the south-east and Ladik and Aq-Sheher on the north-west.<sup>1</sup> There is also a very good road, extremely well engineered, across the mountains near the end of Sultan-Dagh immediately to the south-west of Aq-Sheher. This road was intended to bring the produce of the very fertile valley of Yalovach (Antioch) and Karagach (Neapolis) to the German Railway, but though excellently built from Aq-Sheher to the other side of the mountains, a distance of about 20 miles, it stops when it reaches the open ground, and there are few places in the whole of Asia Minor where the ways are worse than from this point to Yalovach, a distance of 12 miles. Another carefully built road runs from Dineir on the Ottoman Railway to Sandukli and Afion-Kara-Hisar ; and there is also a good road from Chai to Bolawadun and Aziziye. This, naturally, ought to continue to Sivri-Hisar and Angora, crossing the Sakaria (Sangarios) by Chandir bridge, but one cannot say whether this intention has been carried out.

After the summer weather definitely sets in, the central plain can be traversed in almost any direction and starting from any point. Owing to the dry and level character of the great central plain, there are very few streams or dry water-channels, and hardly any irrigation channels. There are, occasionally, some slight difficulties, but these are rarely of any consequence. For example, it is necessary to avoid stumbling on the Ala-Dagh. As a general rule, mountains can be seen and avoided, but the traveller finds himself involved on the low, bald summit of Ala-Dagh before he is aware that he is on a hill. It lies about 40 miles west of the great Salt Lake.

With regard to communication on the plateau, everything is easy in dry weather. The Phrygian mountain region is traversed by several natural paths, some leading north and south, some leading approximately east and west. The continuation of the trade route from the Maeander valley and Dineir goes along a series of open, long glens for about 70 miles

<sup>1</sup> This road connects with the Cilician Gates route and north-east with Kaisari.

till it comes near Chai, a station on the German Anatolian Railway. Here it makes a rather sharp descent of 300 to 400 feet, which is simply the edge of a plateau lying above the level of the great valley of Phrygia Paroreios.

This Paroreios valley, the most important line of communication in the western part of the plateau, is about five to fifteen miles broad and extends from beyond Afion-Kara-Hisar on the north-west right on till it merges in the open Lycaonian Plain. It is bounded for a considerable distance on the south-west and south by the lofty ridge of Sultan-Dagh (8,000 ft.) and on the other side by the lower Emir Dagh. The contrast between the two ridges is striking to the eye ; one sharp and lofty, the other low, bare and featureless ; and is marked in the popular Turkish names, Sultan and Emir. The valley of Paroreios in its upper part runs, in general, from WNW. to ESE., but after passing the railway station of Aq-Sheher (Philomelion) it turns due eastward and gradually merges into the open central plain. The Anatolian Railway traverses this throughout its entire length, and after reaching Serai-Ini (the station for Ladik) the railway turns south to cross the Boz-Dagh and to reach Konia. The original intention of the British Ottoman Railway from Smyrna was to emerge on this plain at Chai and then to follow the line which the German Railway has taken to Konia, but there are two divergences between the routes chosen. The German Railway, after leaving Aq-Sheher, turns away due east and even slightly north of east for 28 miles to Chaushji-Köi and then turns south to Ilghin. This involves a great detour,<sup>1</sup> and the survey plan for the Ottoman Railway followed

<sup>1</sup> The reason for this considerable detour used to be attributed by popular gossip to the desire to make the railway longer, and so increase the amount of the kilometric guarantee paid annually by the Turkish Government ; but it is possible that the road-bed presented advantages on the line chosen, although that line leads away from habitation and agriculture into an almost uninhabited district (where want of water is severely felt), until the railway rejoins at Ilghin the main line of ancient and modern communication, the central trade route. Chaushji-Köi lake is only a great marsh given up to reeds and mosquitoes.

the caravan road direct from Aq-Sheher to Ilghin. The other divergence was in the crossing of the Boz-Dagh, for which see p. 11.

#### (4) *Healthiness and Fertility of the Central Plateau*

In summer the weather of the great plains, on the whole, is extremely pleasant and invigorating, except when the wind is in the south; but the north wind, always a dry and health-bringing breeze, blows very frequently. The peasants use it to winnow their corn, throwing up the produce of the threshing-floor into the air with shovels, so that the wind may blow away the chaff to a little distance, while the grain falls close.

As to the conditions of health on the plateau, these are almost everywhere excellent. The atmosphere at this high altitude is fresh and invigorating: the heat by day, though often great, is rarely felt to be oppressive, and the cool nights always require the traveller to put on some extra covering after sunset, if he is in camp. Towns and houses, however, retain the heat, and are sometimes oppressive. Malaria is rare on the plateau, and though mosquitoes abound where there is water, they do not, as a rule, appear to be the kind that communicate the germ of malaria. An American doctor in Konia, who had the experience of many years, has stated that malarial fever was not common. In Konia itself he had found a few cases in recent years, but these were all in the district beside the railway station and the hotel. The managers of the hotel have taken great trouble to make a garden and to plant shade-producing trees, the result of which has been to foster mosquitoes. Until within the last few years Konia was absolutely free from mosquitoes, though the small sand-fly was troublesome in hot weather. But wherever moisture and vegetation are fostered there mosquitoes establish themselves, and if the malaria germ is present through the coming of strangers from the low country there fever seems to begin. This is the case, for example, in the stations and towns of Aq-Sheher and Ilghin on the Anatolian

Railway. On the other hand, at Yalovach, although the mosquitoes are numerous along and near the course of the stream that flows through the town, yet there seems not to be a trace of malarial fever. These mosquitoes appear, even to the unscientific eye, quite different from the malaria-bearing mosquitoes. They are, however, rather troublesome, and they are found in suitable weather on the top of a peak fully 5,000 feet in height, which overhangs Yalovach about five miles to the south-east. Yet Yalovach is a place admirably suited to be a sanatorium for malarial fever, and it bears that reputation throughout the neighbouring country.

The native population have a good idea of health conditions in certain respects, and they distinguish between one place as a sanatorium, and another where the air is heavy and unhealthy. The latter is the case with such places as Bey-Sheher, at the exit of the river from the great lake, and the south-eastern edge of the Lycaonian plain, where there is a small lake liable to great variation in level, and consequently marshy ground favourable to mosquitoes. But, as a whole, with insignificant exceptions, the health conditions of the plateau are excellent except in so far as the dirty habits of the natives and the prevalence of certain diseases make towns and villages insanitary. Even then, however, the sun of summer is a great purifier and disinfectant.

In this, as in many other respects, there is a marked contrast between the coast valleys and the central plateau.

The soil of the plateau is generally, except on the hills, deep and rich and free from stones to a considerable depth. This soil in summer is liable to rise in dust clouds when disturbed on the surface, but after two or three days of rain, it turns into a sea of mud several feet deep. Travelling then becomes, as has been said, impossible for wheeled vehicles, except on a properly built road, which is usually called by the Turks *chaussée* or *jadde*.

There is a widely spread opinion that the central plain is a desert, uninhabited and almost uninhabitable, but this,

though it has affected Kiepert's old map, where the name 'desert salé' is printed over this region, is very far from correct. In ancient times there was certainly a fairly large population, and there were many towns sufficiently important to strike their own copper coinage. In modern times one is rarely far distant from a village. Most of them are small, and in a number of cases they are only summer villages or *Yaila*, but a small party of travellers has no difficulty whatsoever in traversing any part of the central plains. The difficulty for a larger party lies in two conditions.

In the first place, the supply of fresh water is inadequate. There can be no doubt that there is abundant water under the surface to be reached by wells, but in some places the wells have to be very deep, as Strabo mentions. There would certainly be no difficulty in finding a much larger supply of fresh water if wells were multiplied. The cisterns which were used for water storage by the ancients have sometimes been allowed to become choked up, and in other cases are so dirty that the water is dangerous. Along the principal roads which traverse the central plain, there are little modern cisterns above the ground, where the piety of former worthy Moslems has established a water-supply for thirsty travellers, with a small provision for maintenance; but these should always be avoided, as they have probably never been cleaned from the time that they were made. Animals also are sometimes drowned in the wells. Such accidents as this are not suggestive of permanent excellence of the water, and the water on the open plain should be avoided, except after boiling. There are also a number of brackish wells, whose water is given to the great flocks of sheep and goats which pasture all over the central plain, but is quite undrinkable by human beings. Sometimes a well of fresh and a well of brackish water are found within 100 or 200 yards of one another; presumably they reach water at different levels.

In the western part of the plateau, viz. the Phrygian mountain region, the water is almost everywhere good, and springs are abundant.

The other difficulty lies in feeding the horses. There is a very inadequate supply of fodder, proportioned only to the ordinary wants of the scanty population, and in the late spring and early summer, before the new harvest is ready, it is often extremely difficult even for quite a small party to find food for the horses. The native horses are fed on the fine-chopped straw which is left on the threshing-floor after the harvest is garnered, and the Turkish horses seem to enjoy this feed and are able to maintain life on it very well, but when they have work to do, a certain amount of barley must be mixed with it. The horse's feed is so arranged that he begins with a little chopped straw, called *Saman* by the Turks. After eating his way through this, he comes to the barley, and after he has eaten the barley he comes to a bottom layer of *Saman*. Possibly horses that had not been accustomed to this chopped straw would not be able to live on it. Turkish horses have to be allowed a month or more at grass every spring to keep them in health.

There would also be some difficulty in feeding the men of a large party, though it is always easy for a small party to find sufficient food of a kind, and the villagers are usually willing to sell lambs at a reasonable price.

Great flocks of sheep and goats are bred partly for wool and mohair (the product of the Angora goat), but a large number of lambs are taken down to Constantinople every year to supply the market. The instance is recorded of a Kurd who possessed a comparatively small establishment which he had not inherited but made for himself by prudence and forethought, and who sent every year about 2,000 lambs to Constantinople. In former times there was a regular drovers' road across the central plain, taking a zigzag direction for the purpose of using the rare opportunities of grass, but the lambs are said to be now sent by rail, and the road has passed out of use and into oblivion. The path is important, because it marks the best line of water-supply, but it is more than twice as long as the direct road across the central plain. Sheep need little water, but the water makes a better supply of grass.

This road was described by a shepherd in 1883 as follows, starting from Qir-Sheher beyond the Halys. The drovers travelled across the Halys by Aq-Serai, Ajem 5 hrs., Sultan Khan 10,<sup>1</sup> Eskil 14, Obruk 18, Suwerik 22, Qözlu 28, Qolu Qissa 30, Kara-Göz 36, Aq-Göl 38 $\frac{1}{2}$ , Cheltik 41 $\frac{1}{2}$ , Ferikli, and so by Torbalu towards the Bosphorus ; altogether about 45 days from Qir Sheher to Constantinople. In almost all the places named there is known to be an excellent water-supply, often a very abundant fountain, or even a flowing river. Kara-Göz has not been visited by any European, but Göz often means a source of water (literally it means eye), and it is described as only 6 miles from Aq-Göl. The shepherd reckoning in hours is very vague. The following list of very large fountains off that line is not exhaustive ; the Sakaria sources at Chifteler, Aikel fountains, Renk-oglu (Ireng-oglu) and Teuk-Bunar, all flowing to the Sakaria (Sangarios), Bughru-Delik (west of the Salt Lake) and the fountains west of Serai-ini flowing to Qözlu ; both the last are lost in the plain.

The flesh of the Anatolian sheep after its first year becomes very strong-tasted ; and therefore it is useless sending to market any sheep, but only lambs.

*(5) Features of the great Central Plain*

What may be called the great plain of the central plateau extends eastwards from the outer edge of the Phrygian mountains. This edge runs in a direction SSE. from about Eski Sheher to Emir-Dagh, on the north-east of the plain of Paroreios, which is the outer limit in the middle, and the South-Phrygian (or Pisidian) mountains, which approach close to Ladik and Konia, form the boundary towards the south. These merge into the mountains of Taurus. From this irregular line the great plain extends away beyond Kaisari to the line of the Anti-Taurus on the east. On the south this plain is narrowest, and here it is bounded by the main mass of Taurus, which rises like a wall straight up from the plain, and

<sup>1</sup> Shepherds' hours reckoned from Aq-Serai.

forms an extremely striking feature of the landscape. East of Kaisari, as has been said, the plain extends to the Anti-Taurus. To the south of Kaisari the plain is bounded much farther west by the lofty ridge of Ala-Dagh, about 10,000 feet, which protrudes to the north from the Taurus. On the north side this plain extends up to the irregular mountain rim, which bounds the whole of the plateau in the region of Galatia and Pontus ; but the Galatian mountains or hills of the Haimane are included within it.

Among the many striking features of the plain are : (1) the Salt Lake, Tuz-göl (Tatta), the largest body of water in Asia Minor in superficial extent, but for the most part extremely shallow, and therefore containing a smaller mass of water than Bey-Sheher Lake. It is said to be even more salt than the Dead Sea, at least in the summer season, when the level of the water is low. In the spring it is swollen with fresher water from the winter rains and the one or two streams which enter it ; (2) Hassan-Dagh (Lesser Argeaeus), a double cone which rises to the height of about 10,000 feet between Aq-Serai and Nigde, and is visible from a very great distance all round on the level plain ; (3) the line of volcanic peaks called Kara-Dagh and Karaja-Dagh, running from south-west to north-east. The highest peak of the Kara-Dagh is about 7,000 feet. The highest point of the Karaja-Dagh seems to be less, perhaps about 6,500 feet ; but this ridge extends to a much greater length than Kara-Dagh, which is nearly circular. Between them there extends across the plain a line of small volcanic peaks, rising only about a few hundred feet or less above the plain. The remarkable features of this volcanic region as a whole well deserve examination by a competent geologist. At the north-eastern end of Karaja-Dagh, there is another lower mountain, called Arissama-Dagh. It is divided from Karaja-Dagh by a space about five miles in breadth, which is only a little elevated above the general level of the plain, forming a pass which must have been extremely important in the wars of defence against the Arabs in the eighth and ninth centuries after Christ. The central and highest peak of

Arissama-Dagh is crowned by a mediaeval castle, which must have been impregnable in the frontier warfare. The peak, even without any defences, is so steep as to cause some difficulty in the ascent, and the fortifications are of great extent and could hold a fair-sized garrison, which could maintain itself, provided it had food and water, for any period, and would be sufficiently numerous to make incursions, as opportunity offered, on the rear of the Arab forces ; (4) North of Kara-Bunar lake (little more than a bed of reeds), there is a district where the upper stratum of the plain ceases (probably through the action of water, and not owing to a fault) : the edge of this gap is very steep, about 300 ft. deep, on the west, but not so well-defined on the east, 20 to 30 kilometres away. The north limit is unknown. Kara-Bunar lake is in its southern extension. In the great plains west are two circular holes of about the same depth, a quarter of a mile in diameter, each with a lake at the bottom ; one is at Obruk, and one west of the gap in the plain at Cheralli. The latter can be descended only by a built path. A few miles from the latter, at Meghil, NE. from Genne, is a similar, but not so well-defined, hole and lake ; it shows the progress of water action ; (5) Erjish-Dagh (Mt. Argaeus), which rises close to the south of Kaisari. It is the most elevated mountain of Anatolia proper, nearly 13,000 feet, and its summit is covered with snow throughout the year.

## SECTION II

### TAURUS AND ANTI-TAURUS WITH THE SOUTH COAST

THE coastlands south of Taurus are very varied in type. They fall into three divisions. On the west, the Lycian country consists chiefly of the valleys of a number of rivers which run down from the mountains of Taurus and offer very fertile opportunities along their courses. This country is divided from the middle region, Pamphylia, by a lofty arm of

Taurus, which extends right down to the sea, impeding even passage by road along the coast. Pamphylia consists of a considerable coastal plain, together with the valleys of several rivers which run down straight south through the front of Taurus towards the sea. There are two harbours of no value for modern ships, Adalia (Attalia) at the western end, and Alaya at the eastern end of the plain. To modern ships they offer nothing but a roadstead and anchorage, though they possessed great importance as harbours or sea-stations for the small ships of ancient times. The importance of Adalia lies mainly in its connexion with the roads. Alaya is now altogether secondary, and very few even of the small steamers engaged in the coast trade touch at it.

It deserves note that in the Byzantine period there was a great naval and military station on the coast at or near Alaya, called the Thema of Kibyra. This Thema was charged with the defence of the coastlands and sea-valleys south of Taurus, regions which could not be protected by access from the plateau owing to the difficulty of communication. Access by sea and command of the sea was necessary to maintain the hold over those regions from Constantinople, as capital: and in fact the Byzantine authority over them continued long after the Turks took possession of the central plateau in 1071-4. This Thema guarded not merely Pamphylia, Southern Isauria, and Lycia, but also Cilicia on the east and part of Caria on the west. Cilicia was hardly entered by the Turks until Sultan Selim's conquests in Syria and Egypt began, about 1516; previously, the land was held or divided between Byzantines, Armenians (the kingdom of Lesser Armenia was practically Cilicia), Ramazanoglu Turkmens, and Memluks of Egypt. For the whole Kibyrrhaiote Thema Alaya must have been the central harbour (though Kibyra is placed farther west by the latest Austrian travellers on this coast).

East of Pamphylia a broad belt of mountain country with a narrow strip of land between hills and sea (called Rough Cilicia) effectively divides Pamphylia from the Cilician plain. This large tract of intermediate hill country had distinct

importance in ancient times, and supported a considerable population with a number of large cities, but under Turkish rule all the hill country has degenerated into rough hill pasturage, with an extremely scanty population of nomads or semi-nomads, mainly *Yuruk*. About the middle of this hill region there is the mouth of the *Gök-Su* (*Kalykadnos*), where the river has gradually formed a considerable tract of new land. There is here, at some distance from the water, the town of *Selefke* (*Seleukeia*), which has been the administrative centre of the entire hill region between Pamphylia and Cilicia throughout Byzantine and Turkish times. Administratively this intermediate region has generally ranked as a part of Cilicia.

Cilicia proper, namely the plain, lies between the mountains of Taurus on the north, Amanus on the east, and the sea on the south. It is by nature divided in racial character and in history from the central plateau on the north of Taurus ; and the passes over Taurus to the plateau are mostly difficult, and were all easily defensible in ancient warfare against an enemy, provided that the defenders had possession of the summits. This line of mountains formed, as a rule, the division between the Arab country and the Byzantine for more than two centuries in the long period of frontier wars, and each side was always struggling to obtain command of the passes, and specially of the one most important pass which takes its name from the Cilician Gates. Along this pass there was a series of forts which were held sometimes by the Byzantine troops and sometimes by the Arabs.

In a military point of view, there are two facts to be noticed. In the first place, even the light raiding armies or bands of the Arabs seem rarely to have used any other pass over Taurus than the Cilician Gates. Some cases are mentioned where parties of Arab raiders crossed by some of the other paths, and this entailed constant watchfulness on the part of the Byzantine commanders, but when there was a really effective movement by a large army from the Arab side, it always crossed by the Cilician Gates, which shows that the other passes were

not suited to carry even the moderate equipment that a Saracen army took with it. In the second place, the Arabs never permanently succeeded in establishing themselves on the north side of Taurus. Armies and bands of horsemen raided the plateau year after year for more than two centuries, even twice in one year, and sometimes three times, but they always returned without leaving any garrison in Asia Minor north of Taurus, except for a few years about A.D. 800, when an attempt was made to hold Tyana, lying in a very fertile part of the plateau, some little distance north of the upper end of the great pass of the Cilician Gates. But this attempt was not maintained, and soon the Arabs returned to the old frontier system of the mountains, according to which Tarsus was the centre of their power in this quarter, forming a sort of secondary capital to the Saracen Empire : Baghdad, of course, being supreme and alone.

This failure of the Arabs to establish themselves on the plateau stands in marked contrast to the success of the Turks, who began by seizing the whole of the central plateau,<sup>1</sup> although the Cilician coast-lands still remained subject to the Byzantine authority, and were not conquered by the Turks until Selim overran Cilicia, Syria, and Egypt, about A.D. 1516. Constantinople was able by its fleet to command the whole southern coast south of the Taurus for some centuries after the Turks conquered the plateau in 1070. The contrast is a striking one, and is very suggestive to the student of mediaeval and modern conditions.

Cilicia is connected more easily with Syria than with the plateau. Its population is more Oriental in type than that of the plateau, and, in an administrative point of view, Cilicia has been connected more commonly with Syria than with the

<sup>1</sup> This easy conquest after one victory at Mauzikut in Armenia was due partly to the weakness of the Empire and the incapacity of several pretenders to the throne, partly to the fact (not mentioned by Byzantine or modern historians) that an agreement was made by one of the rival candidates for the Byzantine throne to hand over the whole plateau to the Seljuk Turks.

Anatolian plateau. The type of the inhabitants is markedly different. The traveller coming down from the plateau to the Cilician plain observes at once that he is in a country of totally different character. Arabic is widely spoken, or at least understood, whereas on the plateau Arabic is practically unknown. The outlook of Cilicia is towards the south and the east, that is to the sea, and to Syria rather than to Anatolia. Mount Amanus (Giaour-Dagh) does not form a division that presents nearly so great difficulty to the march of armies as Taurus ; and accordingly while the Turks held the plateau, the Byzantine rule over any part of Cilicia was ended by Egyptian conquest through Syria.

The Cilician plain has always been famous as one of the most fertile districts in the Mediterranean world. It falls into two parts, according to natural divisions. The western is the larger, containing about 800 square miles of fertile land, with the towns of Adana and Tarsus and the harbour of Mersina ; these three towns have long been connected with one another by a railway, originally built by British enterprise, which passed into the hands of the Baghdad Railway by private agreement some years ago. The eastern plain contains about 680 square miles of good arable land, with the ancient capital at Anazarba, the ancient religious centre at Budrum (Hierapolis), and the modern capital, both political and ecclesiastical, at Sis, in the extreme north. This eastern plain is divided from the sea by a ridge of hills running along the coast ; and the line of the Baghdad Railway passes from Adana by Missis, where it crosses the Jihan (Pyramos) by a long bridge, to Osmania, soon after which it begins the ascent of the ridge of Giaour-Dagh (pass height about 1,990 ft.<sup>1</sup>). This mountain, called in ancient times Amanus, projects southwards from the Taurus and passes near the coast on the east side of Alexandretta. There is another route (2,000 ft.<sup>1</sup>) over Amanus, leading inland from the harbour of Alexandretta over Beilan Pass, but the

<sup>1</sup> Aneroid reading on the road. It was stated many years ago, by the manager of the British Railway at Mersina, that according to his survey of an extension to Aleppo, the railway would cross at little over 1,800 ft.

Baghdad Railway naturally avoids this route, because, although from a commercial point of view it presents some marked advantages, it leads along the sea-shore for a considerable distance before reaching Alexandretta, and therefore, from a military point of view, is regarded as impossible, because exposed to sea-attack.

There is no proper harbour on the Cilician coast for even small merchant steamers. They have to lie out in the roads and discharge cargo by lighters. The principal ports are Mersina and Alexandretta, and all trade passes through one or other of these outlets. Ayas (Yimurtalik Bay), half-way between them, is little used, although its situation has been described as advantageous.

In regard to conditions of health, the Cilician plain shares in the ill-repute which attaches to the whole Levant coast of Asia Minor, and it is especially the immediate neighbourhood of Tarsus on the railway which is most trying to human beings. Vast marshes occupy a great part of the district between Tarsus and the sea, a distance of ten to twelve miles, and these are infested by countless clouds of flies of all kinds, by night and by day. In 1902 the writer was anxious to ride down to the sea from Tarsus. His companion was a Pathan, from the Afghan frontier, who (as he said) had been a soldier in the Guides, had made the pilgrimage to Mecca, and, finally, had drifted in unexplained ways to the protection of the British Consul at Mersina. Even he, however, though about as hard a man as could easily be found, found it impossible, after riding about six miles, to force his horse to face the clouds of flies which made life a burden to it. Human beings, even with every advantage of knowledge and forethought, find life in the Cilician plain trying to health, and men who had no experience of life and travel in such regions would certainly suffer severely, and a large proportion of them would have their value seriously impaired by illness. With a view to good health the time when travel on the coastal plain of Cilicia or occupation of it, even for a temporary purpose, should be arranged is in the winter or spring. Later than the middle of May the conditions

become extremely unfavourable and continue to become worse through the summer and autumn, as the marshes gradually dry to a certain degree. These statements apply only to the plain, but there is between the plain and the mountains of Taurus an intermediate hill country, sometimes of considerable breadth. These foot-hills come down quite close to Mersina, Tarsus, and Adana, and they offer healthy habitation in quite invigorating conditions to the population of the plain. Tarsus, for example, which was for more than two thousand years the principal city of the plain, could never have maintained the vigour of its inhabitants, unless they had been able to live within a few miles of the city and yet in totally different conditions.<sup>1</sup> The remains of a large city extend over the foot-hills for a very considerable distance on both sides of the road to the Cilician Gates, and are evidently the remains of this second and higher Tarsus.

East of the Cilician Gates the Taurus trends towards the north-east, retaining the same characteristics in even emphasized form up to and beyond the river Euphrates, which flows in a deep gorge through the mountains. Several very difficult tracks lead across this part of the Taurus from Sis in Cilicia to the region of Kaisari or to Hajin, which used to be an Armenian town of 2,000 houses in a deep hole in the Taurus, a flourishing industrial community. In the history of the kingdom of Lesser Armenia (i.e. Cilicia) for three centuries after 1140, those passes played an important rôle.

About three to four days' journey east of Kaisari,<sup>2</sup> a high mountain range (called in ancient times Anti-Taurus) diverges northwards from the Taurus range. This forms the eastern limit of the central Anatolian plain. On the north Anti-Taurus sinks into the high-lying plains of the Uzun-Yaila, now inhabited by Circassians (until forty years ago by Avshar, who were driven into the Anti-Taurus by the Circassian refugees), the

<sup>1</sup> The conditions, of course, were much better in ancient times, when what is now marsh was city and inland harbour; but they can never have been invigorating.

<sup>2</sup> Reckoned according to the old muleteers' way of estimating distances.

Uzun-Yaila forming the watershed between the Euphrates Valley and the Halys.

The Circassians of Uzun-Yaila form by far the largest section of the Circassian population of Turkey. They live, or used to live thirty years ago, mainly by horse-breeding, and large herds of horses roamed over the plains in the summer, but the Uzun-Yaila is too elevated a plateau for horses to inhabit in the winter, and the Circassians used to drive their horses down to winter in Cilicia. This gave the Government a hold over them, and in the course of a quarrel between these turbulent tribes and the Government, about thirty years ago, the Circassians of the Uzun-Yaila had to submit, when the Government refused to allow them to pasture their horses for the winter in the Cilician plain.

This great mountain region of the Anti-Taurus consists of two parallel ridges, running nearly north and south, separated by a deep narrow glen, through which flows the river Gök-Su<sup>1</sup> (Saros), and in which lies the ancient city of Komana on the right bank of the river. Of these two ridges the eastern is called Binboa-Dagh, which forms a continuous mountain, not traversed by any road and attaining a height of 9,000 to 10,000 ft. The ridge on the west of the Saros is not continuous, but is traversed by a series of passes with a summit level of 6,000 to 7,000 ft. There is no single name for this mountain ridge, because it is obviously divided by the passes into a series of separate parts. The names of all the parts are uncertain, but about the middle, on each side of the Quru-Bel, the traveller has on the north a mountain ridge called Soghanli-Dagh and on the south the Qizil-Göl-Dagh.

Seven well-marked passes, four on the north and three south, lead over the western ridge of Anti-Taurus; they cross the mountain by deep glens (pass height about 6,000 feet). Three of these are specially important: (1) Yedi Oluk, by which the traffic from Sivas and Aziziye crosses to Hajin or to Guksun and Syria, a fairly easy path; (2) Quru-Chai, by which the ancient trade from the west and the modern traffic

<sup>1</sup> This name, and not Seihun, is usual on the plateau.

from Kaisari goes eastwards: this is the best road over Anti-Taurus; (3) Gez-Bel, by which traffic goes between Kaisari and Hajin, a steep pass, but quite practicable for wheeled carriages.

East of Anti-Taurus is a great undulating country, reaching to the Euphrates on the east and to the Taurus on the south, divided between the basins of Euphrates and Jihan (Pyramos). The trade route goes north of Bimboa-Dagh to Gurun, Derende, Malatia, to the Euphrates. The Roman military road keeps to the south of Bimboa-Dagh to Guksun (Kokussos, Coxon of the First Crusade), and then turns north-east and east to Yarpuz (Arabisos), Albistan, Malatia, and the Euphrates lines. Both war and peace found paths across the eastern Taurus into Syria, leading from Guksun or from Albistan to Marash, or from Malatia by Pavrelü.

### SECTION III

#### ACCESS TO THE PLATEAU FROM THE SEA<sup>1</sup>

REFERENCES to ancient conditions are intentionally introduced, as these will revive, and must determine the future development of Anatolia, when prosperity returns.

(1) There are few roads from the west coast-lands to the central plateau, and only one furnished by nature which is good in itself, namely the line of the modern Ottoman Railway by the Maeander Valley to Dineir (Apameia-Celaenae) starting from the harbour at Smyrna. Political circumstances have denied to this railway its natural development, which had been planned in accordance with the nature of the route previous to 1889, but then the German banks<sup>2</sup> came into possession of the Anatolian Railway, which leads from the Bosphorus to

<sup>1</sup> The routes described are numbered in heavy type.

<sup>2</sup> Mainly, perhaps solely, the Deutsche Bank, which has built the Baghdad Railway with money borrowed in France through the Swiss banks (as direct dealing on the Bourse was forbidden by the French Government).

Ismid and has thence been extended to the plateau with the intention ultimately of reaching Baghdad. The German administrators in possession of this starting-point succeeded in thwarting the oft-repeated efforts of the Ottoman Railway to secure their right of extension to the east.<sup>1</sup>

Apart from this principal route from the coast to the inner plateau, the route which has been the most important 'trade route' across Anatolia from east to west throughout history, there are other subsidiary lines of access. These are (2) the line of the French Railway, *Smyrne-Cassaba et Prolongement* to Afion-Kara-Hisar, where it joins the German line. This railway was originally English, but lapsed to the Government, in accordance with a concession, somewhere about 1890 and was transferred to a company, mainly Belgian and French. It follows, roughly speaking, the ancient line of the 'Royal Road', a path of immemorial antiquity, leading from Sardis to Mesopotamia and to Persia; but the agreement in the line between this modern railway and the ancient route is not nearly so complete as the agreement between the Ottoman Railway and the ancient trade route. The comparative want of agreement is due to the fact that nature has not furnished a path which imposes itself alike on foot and horse passengers and on railways. Only in the section about twenty miles east of Ushak, leading up the valley of the Hamam-Su or Banaz-Chai, is agreement compulsory. Every one must ascend this steep glen to cross a broad ridge of the Phrygian Mountains running north and south.<sup>2</sup> There is here only one way, bordered on both sides by high mountains, Murad-Dagh (Dindymos) on the north-west and the central Phrygian Hills on the south-east.

<sup>1</sup> The extension of the Ottoman Railway to Egerdir, which has been recently completed, leads into a cul-de-sac, and was permitted on that account, and not from any desire to foster the real development of this British-owned railway. Yet the long and difficult continuation to Konia, passing west of Yalovach and east of Kereli, was being surveyed in 1914.

<sup>2</sup> It is really an elevated plateau rather than a ridge (height over 4,000 ft.). The slopes in wet weather are muddy and troublesome, but in dry weather there is no difficulty.

These are the only useful approaches from the western sea to the plateau. A traveller on foot can make his way up other paths, but they are extremely difficult and no traffic has ever gone over them. (3) One has some historic interest as a path for travellers, but not for trade ; it ascends from the upper Kayster, and gets involved in the difficult south-west end of Banaz Ova, where the Maeander and its tributaries flow and meet in very deep cañons.

(4) The approach by land from the Hellespont to the central plateau is long and difficult. It follows the coast to Panderma and then crosses east of Mount Ida by low easy passes to the Kaikos and Hermos valleys. In the latter it joins the line of the French Railway, Route 2.<sup>1</sup> This same pass east of Ida forms the best land line connecting Smyrna with Constantinople, and is now served by a railway and steamers, forming a service called by the imposing title of 'The Panderma Express', but the connexion is so poorly maintained and so slow that, even in point of time, the traveller saves much by taking the steamer the whole way round. This railway is a branch of the French line, going off at Magnesia via Soma and Balikesri to Panderma. Historically, this route has been of considerable importance. We hear little of it indeed until late mediaeval times, but it must always have been a route of importance. Both the Second and Third Crusades passed over it. The traveller from the Hellespont to the central plateau, instead of crossing the low pass east of Ida, might keep on straight eastwards near the coast by way of Brusa and so reach the line of Route 5, some distance south of the lake of Sabandja ; but the path is so difficult and so long that it is of no importance, except in so far as it coincides with the route from Constantinople by the line to Smyrna, which has just been mentioned.

<sup>1</sup> Estimated distance by the old roads : Chanak-Qalesi by Kara-jalar to Duman 31 miles, to Pasha-Köi 38, to Balia-Bazar 67, to Avshar 93, join Edremid road and cross river 102, Balikesri 107 : hence the railway southwards. Balikesri to Edremid 56 miles (pass height of 1,150 ft. near Ivrindi, 20 miles).

Brusa, though a city of great historical, artistic, and commercial importance, is so remote from the main lines of communication and from other great centres, as to be wholly unsuited for an administrative centre for Asia Minor as a whole. It was the cradle of the Osmanli or Ottoman power.

The lines of access from the coast on the north of the plateau are extremely important, though none of them approach in natural ease the trade route on the west. (5) The first and most important of these is the line of the German Railway from Haidar Pasha by Ismid to Eski-Sheher (Dorylaion). This line leaves sea-level at Ismid, goes east some miles by the south side of the lake of Sabandja, then ascends the valley of the Sangarios and thereafter of its tributary, the Kara-Su, and comes down from the mountain rim on the plain in which Dorylaion lies. This has always been the main line of communication between Bithynia and Constantinople on the one hand and the central plateau on the other. It was the military road of the Byzantine system of defence against the Arab invasions, and in the view of the historian it has long completely overshadowed the two preceding roads. There is a side branch of this road, leading from the upper end of Kara-Su Valley direct south-west to Kutaya (Kotiaion), without touching Eski-Sheher; and the Anatolian Railway turns back south-west from Eski-Sheher to follow this route, passing near Kutaya (on a short branch line) and on to Afion-Kara-Hisar. This circuitous route is far preferable commercially, as it leads through more cultivated regions and touches the chief cities. It presents little difficulty to the engineer, and the watershed dividing the basin of the river of Kutaya and Eski-Sheher from the valley of Phrygia-Paroreios towards Afion-Kara-Hisar and onwards is low and barely perceptible, except when one watches the levels inscribed on the station buildings all along the German line.

Afion-Kara-Hisar (3,307 ft.<sup>1</sup>) lies in Phrygia-Paroreios, that

<sup>1</sup> Railway station height: the town is 40 to 100 ft. higher: so also at Aq-Sheher (below), the difference is 50 to 200. At Angora, it is more.

great valley and historical road-line (already mentioned in a previous Section) which is closed in by the Phrygian mountains on either hand, the level of the railway line sinking slowly until Aq-Sheher is reached (3,274 ft.) at the station below and east of the town. Thereafter the line slightly rises until it reaches the mean level of the central plain, about 3,300 ft. near Ilghin. Paroreios, therefore, presents a slight depression in the general plateau level and a considerable part of it is occupied by a series of marshy lakes, Eber-Göl, Aq-Sheher-Göl, &c., which are vast breeding-grounds for mosquitoes. The line of the Anatolian Railway has been laid out so as to take the fullest advantage of the lakes and the insects.

The direct connexion between Eski-Sheher and the East is maintained by the branch line to Angora (2,789 ft., on which see also *Route 6*). This was intended in the original scheme of the Anatolian Railway to be the main line, but it was abandoned in favour of the superior strategic advantages offered by the road through Konia and the Cilician Gates to Adana and North Syria. The cession to German control of the old British railway from the Bosphorus to Ismid, about 1889, was strongly favoured by Sir William White, then ambassador in Constantinople, apparently under the impression that the line projected to Angora and the East would form a basis for German commercial interests in the eastern parts of Turkey and a barrier against Russia. Diplomatic conditions, however, soon showed that, to further their schemes in the East, it was advisable to fall in with and to encourage the desire of Sultan Abd-ul-Hamid to form a good road to the Holy Places of Arabia, hold on which was necessary to strengthening his position in the Mohammedan world as Khalif. Thus grew the grandiose plan of a great railway from the Bosphorus to North Syria, forking near Aleppo, on the one hand to Baghdad and the Persian Gulf, and on the other hand to Mecca, passing at a not remote distance from the Suez Canal and Egypt.

In planning the line from Eski-Sheher to Konia, the German engineers rejected the direct path from Eski-Sheher to Afion-

Kara-Hisar, because, in the first place, although quite feasible for a road, and carrying such a road in Roman and Byzantine times, it crosses a pass which is of considerable height and is steep and rough in access: in the second place, that path would neglect Kutaya, one of the chief centres for such trade as is maintained in the western part of the central plateau.

The same engineers also rightly left aside, as unworthy of consideration, the roads across the great central plain leading from Eski-Sheher either to Konia or direct to the pass of the Cilician Gates or to Aq-Serai (Archelais) and Cappadocia, which will be mentioned later. Although these roads offer a shorter line, they pass through a country which maintains only a scanty population of semi-nomads.

(6) The routes, which run between the two parallel ridges forming the northern rim of the plateau, have had great historical importance at certain periods (chiefly in the Mithridatic wars, and the wars of the Empire against the eastern Seljuk princes in the thirteenth and fourteenth centuries). They are, however, not to be compared in importance with the path and railway to Eski-Sheher—least of all are they comparable to it in the present time: see Section V (4).

(7) The old trade road from Constantinople to Angora (Ancyra) diverges from Route 5 immediately south of Lake Sabanja and follows a rather difficult route, along which all the important trade between Angora and Constantinople has been carried on horseback for many centuries. This route began to come into use, so far as evidence goes, in the third century after Christ, when it was followed by numberless pilgrims who, during many centuries, came from Europe to visit the Holy Land.

(8) The road leading inland from Samsun (Amisos) has also been important in history and in trade, and a railway leading from the harbour at Samsun to Amasia, Sivas, and thence turning eastwards up the Qizil-Irmak (Halys) towards Armenia, has been projected for many years and formed the subject of much diplomatic discussion. A suitable and fairly easy route is presented in this direction.

The original scheme of the Anatolian Railway from the Bosphorus by Eski-Sheher to Angora and Sivas would coincide with this line from Sivas onwards.

(9) A still more important trade route has led up from Trebizond into Armenia and eastward to Central Asia. Fifty or sixty years ago, and for many centuries preceding, great caravans passed along this route in one direction or the other, and traders leaving Trebizond with goods for the East returned from Bokhara and Samarkand and even more distant markets, after 15 or 18 months, with the goods of Central Asia destined for the West.

(10) An unimportant and difficult horse-road leads south from Sinop. Yet it may in very early times have been much used, as Sinop was the harbour whence light Cappadocian trade was shipped to Greece. In modern times it can have no value, as Nos. 5, 6, and 7 present far better lines for railway connexion.

(11) On the south, the mountain rim which bounds the central plateau bears the general name of Mount Taurus (see p. 8). On this side, communication between the sea-coast and the plateau is generally very difficult, but there are several roads which have historical significance. The roads which lead up from Adalia (Attalia) on the Pamphylian coast have always enjoyed a certain importance. The Taurus in this part is very low, and much broken by glens and lakes. The principal road leads to Denizli (close to Laodicea) and the Maeander Valley. Here it joins the trade route (No. 1). The Second Crusade came down from Denizli by this path, seeking thereafter to reach Cyprus and Syria by sea, and this way of communication had a certain importance in former times.

These roads in ascending from the Pamphylian coast valley (on which see p. 24) have to make a step of more than 2,000 feet, very steep, to the outer edge of the Taurus plateau. The easiest pass is Yenije-Boghaz, 16 miles from Adalia, leading on to Istanoz (Isinda, 3,000 ft.), thence by Salamurt Boghaz (summit-level 4,800 ft. at 58 miles), and to Tefenni

(3,600 ft.), 80 miles, and straight north by Kara-atli, 98 miles (3,750 ft.), to Chardak, 123 miles (on the Ottoman Railway, 2,800 ft.), and Aghlanköi, 151 miles (2,600 ft.), and Deli-Heuderli, 167 miles (2,750 ft.), to Ushak, 190 miles (3,100 ft.) : before reaching Ushak, the deep gorges of the middle course of the Maeander must be crossed. North of Tefenni this is not a natural route, but merely a passage from one part of the country to another cutting athwart all routes.

Other routes from the Pamphylian coastlands to the plateau are tedious and difficult. There is an Italian project for a railway from Adalia to Isbarta via Buldur, connecting there with a branch of the Ottoman Railway. Political reasons led to the choice of such a line for a railway, which presents serious difficulties to the engineer. It was generally understood that this concession was granted in 1913, but no work has ever been done on the line.

(12) No reasonable line for a railway connecting Konia (Ieonium) with Alaya or any other Pamphylian harbour can be found. A horse-road was used or made by Ala-ed-din connecting his great harbour of Alaya with Konia via Bey-Sheher ; but it is very rough.

The first manager of the Ottoman Railway was anxious to find a feasible railway route, because, as he said, goods from the Konia region would not bear the cost of the long transport by land along the Ottoman Railway to Smyrna. It was the dread of this prohibitive cost which prevented him from undertaking that section of the Ottoman Railway in 1887, when the concession for it was offered to him. But no useful route from Konia to the Levant and the Pamphylian Sea exists, except on the following line (which is too long and difficult to offer any advantages to a railway conducted on commercial principles, as the British Ottoman Railway was).

(13) South of Karaman (Laranda), which lies in a deep angle of the Taurus, the mountains are lower and more broken around the upper rims of the Gök-Su (Kalykadnos). From Karaman, several tracks lead across to Ermenek, 3,800 ft., in a deep gorge of the Taurus, and to Selefke (Seleu-

keia) which lies on the low coast-lands, a little way back from the sea, at the lower end of the Gök-Su. Said Pasha, who governed the Konia province for many years from 1879 onwards, made a road passable by wagons from Karaman to Selefke. In Roman times, about 200 years after Christ, a road was constructed to Karaman and Korghos (Korykos), about 15 miles east of Selefke. It is narrow, just barely broad enough for a wagon, and has been traced only for a few miles near the southern end. Several tracks across the Taurus in this part lead to Karaman or to Eregli, both stations on the Baghdad Railway. They are necessarily difficult on account of the character of the country, but at least one of them (apart from Said Pasha's road) is quite susceptible of being made into a useful road if there were anything to gain thereby. It crosses the Taurus from Maghra on Said Pasha's road to Eregli over a high plateau, 6,000 to 7,000 ft.

(14) The tracks in this region pass beside the high-lying *Yailas* of the nomad Yuruks at various points, and two or more similar paths cross from the western end of the Cilician plain about Tarsus and Pompeiopolis or Mersina, ascending by branches of the Nemrun river and coming down on Eregli.

(15) All these roads are of quite secondary importance in comparison with the great historic route for armies and for trade which takes its name from the Cilician Gates, a single point on its course. A considerable amount of rock-cutting was needed to make this road. The ancient chisel-work is easily distinguished from the more expeditious, but less beautiful, blasting used by the moderns. We hear of this route as the usual wagon way about 400 b.c., but it is certainly much older. It was, apparently, destroyed completely as a wagon-road during the Arab wars, and remained in use only as a horse-road for many centuries, but it was remade for wheel traffic in the years following 1880, though in very poor fashion.

This road follows the line of a little stream which flows down from the high *Yaila* beside Ulu-Kishla, the most

westerly river that has a practically continuous course as a river from the central plateau through the Taurus to the sea. The rivers west of the Cilician Gates that flow into the Levant from Taurus rise in, or on the southern declivities of, Taurus, though several seem to be connected by underground passages or *Duden* (*Katabothra*) with lakes or rivers on the plateau; but from the Cilician Gates eastward there is a series of rivers which rise on the plateau and flow through the Taurus to the sea. Those rivers are: the *Zamanti-Su* (*Karmalas*), the *Seihun* (*Saros*), and the *Jihan* (*Pyramos*). The *Zamanti-Su* joins the *Seihun* in the heart of the Taurus. These three rivers wind in deep gorges through the Taurus, and the scenery of the gorges is described as wonderfully magnificent. They are, however, of very slight importance for travellers and of none for traffic.

The only river which offers a useful course for a roadway through the Taurus is the one that we are describing, which rises near *Ulu-Kishla*. It is called either the *Ulu-Kishla* Water or the *Bozanti* Water. Rising right on the highest *Yaila* of this neighbourhood, nearly 5,000 ft. above the sea, it flows through the Vale of *Loulon*, then in a narrow cañon by *Chifte Khan* and a more open glen by *Takhta-Köprü* (wooden bridge) and *Aq-Köprü* to the Vale of *Bozanti*, an oval small valley in the heart of the Taurus. This vale was known in ancient times as the Camp of Cyrus, or by the local name *Podandos*. Between this vale and the open Cilician Valley there runs the outer ridge of Taurus, from north-east to south-west, and the river penetrates by a very narrow gorge into this ridge, degenerating at last into a tunnel under the mountain (as is reported). The road cannot follow the stream south from *Bozanti*,<sup>1</sup> which is about 2,800 ft. above sea-level, but turns south-west and ascends the ridge of Taurus, crossing it by a broad level open pass, which was defended formerly by a series of forts, called *Ibrahim Pasha's Lines* (built by *Ibrahim*, son of *Mehemet Ali* of Egypt, when

<sup>1</sup> A well-constructed road has recently been built from this point over the mountains towards *Adana*, along the line of the railway.

he invaded Asia Minor in 1836 with the intention of dethroning the Ottoman Sultan). This crossing is about 4,350 ft. above the sea. From it the road descends 500 ft. to the Cilician Gates and continues over the rough foot-hills towards the plain, on which it emerges about five miles north of Tarsus. A branch of this road diverges to the left, a little way south of the Gates, leading to Adana, the capital of the province; but this is only a horse-road, whereas the whole line of the road to Tarsus has been in recent years made into a very fair road. When crossed in a wagon in 1909 it was found good the whole way. The time for each kilometre varied between five and ten minutes, according to the gradient.

Even in this case the road cannot follow the river valley the whole way. Rarely does the road follow the river valley, because all the rivers flow through more or less impracticable gorges. The railway can follow the Maeander and Sangarios and Hermus only for a short distance.

The road which is called after the Cilician Gates forms the line of the Baghdad Railway from Eregli in the plateau by Ulu-Kishla as far as Bozanti. Thereafter the railway is to follow the line of the river all the way to Adana, penetrating the outer Taurus ridge by a series of galleries culminating in a great tunnel seven kilometres in length.<sup>1</sup>

## SECTION IV

### MAIN AND LOCAL ROADS

#### (1) *Roads crossing Anatolia east and west*

THE roads in Asia Minor belong to two categories. In the first place there are the roads which are required for internal administration; in the second place there are the roads which

<sup>1</sup> This part of the Baghdad Railway is complete except for the section between Karapunar and Dorak. This section will take a year or more to complete, and at present communication is maintained by the road referred to in the foot-note on page 40.

form part of the world's system of communication. Asia Minor is a bridge between Asia and Europe, and from time immemorial it has been crossed by roads whose purpose is not to help in the administration of the country, but to lead from points farther east in Asia to points farther west in Europe. These two classes of roads frequently merge in one another ; that is to say, a road between two points may at the same time serve in the one category and in the other. It may be important for internal communication and for governmental administration, and at the same time it may be part of the general system of communication between farther Asia and Europe. These two classes of roads have to be briefly described apart from one another.

The administrative road system of Anatolia (i.e. Asia Minor north of the Taurus) is determined by the situation of the capital and seat of government. Since Constantinople became the governing centre, in A.D. 330, the main purpose of the roads has been to maintain connexion from the Bosphorus to Asia Minor, Syria, Mesopotamia, and in part to Egypt, Armenia, and Central Asia. Naturally, heavy merchandise to these last-mentioned regions would go by sea, even in the period of sailing-ships, but the introduction of steamers, with their regular departure and arrival, greatly modified the conditions of travel and trade. As a remarkable example of the new system, the instance may be mentioned of a member of the Turkish Parliament, who was starting from Constantinople for Baghdad in 1913, and, in reply to a question how he intended to perform the journey, stated that the quickest and best road for his purpose was via Bombay. Other modifications in the lines of traffic are easily imagined.

Before the foundation of Constantinople as the imperial city, the aim was to reach the western capital, namely Rome, or to carry from Rome orders and armies, trade and officials to the East. Before the dominion of Rome began in the East, the aim of these world roads was to mediate between East and West, the Asian and the European capitals for the time being.

In the present conditions of communication and installation,

the administrative inland centre of Anatolia would probably be at Eski-Sheher (Dorylaion), which is situated at the fork of the two great railway lines, viz. the Baghdad Railway via Konia and Eregli, and the Angora Railway (which must be continued via Yozgat to Sivas and Erzerum). Other places hardly deserve consideration. Brusa was the cradle and early centre of the Ottoman power, but is disqualified by lying so far from all the lines of communication: it is in a corner of the Empire, and derived its importance from the accidents of a passing phase of history. Konia, the capital of the Seljuk Turks, has more claim; but it is not, and never can be, a great centre of meeting lines. Angora, Kaisari, Sivas, are all important centres, but the last two are remote from all railways, and the first is the terminus of what for the present must be called a branch line, though, after the changes that must come have come, it will be far more important than at present. Smyrna is the only possible point of connexion with the West: it has always been the dominating railway head and centre, and it is in close communication with Europe, possessing a safe and good harbour, where the railways deliver to the ships. Under the Hittite Empire the capital was at Boghaz Kōi (Pteria), 5 hours from Yozgat. At all other times Asia Minor has belonged to a foreign race, and looked to a capital outside itself.

During all that earlier period the chief harbours for the West were in succession, Miletus, at the mouth of the Maeander (until access to the harbour was impeded by the gradual silting up of the estuary); then Ephesus, at the mouth of the Kuchuk Menderez (Kayster), until for the same reason it ceased to be accessible to sea-borne traffic; and finally, Smyrna, whose importance has always been great from the earliest to the latest period of history. During the period of decay of the Turkish Empire, which lasted until between 1880 and 1890,<sup>1</sup> Constantinople was far more important as an official

<sup>1</sup> A distinct attempt at renovation and reconstruction began then. Many nomads were forced to settle down: some were subdued for the first time. The attempt was unpractical and unsuccessful, but it is useful to study.

city than as an emporium for trade, and the roads which led to Smyrna still carried the greatest part of the merchandise which crossed Asia Minor. Hence, when railways began to be built in Turkey by British companies, whose purpose was trade, they started from Smyrna as the important harbour of Turkey, and aimed at finding the best route direct towards the East, one taking one and one the other of the two ancient routes of access from the west coast to the central plateau (Section III, Routes 1 and 2).

There was an interesting attempt made not many years ago, at least in intention, to revive the old historic importance of Miletus. A scheme was formed by some European financiers, mainly Belgian, to regulate the course of the Maeander and form a harbour, a little way above its mouth, readily accessible to the sea. The scheme, naturally, was vehemently opposed by all the interests in Smyrna, and for that and other reasons it failed even to make a beginning. Again, a shadow of the old importance of Ephesus as the harbour for eastern trade was maintained at Scala Nova, a little way south of the mouth of the Kuchuk Menderez : but the Ottoman Railway established the monopoly of Smyrna, and destroyed the value of Scala Nova, which was five hours distant from the station and necessitated reloading of all goods on camels, while Smyrna was only three hours distant by rail. Moreover, Scala Nova was only an open roadstead, while Smyrna offered superior advantages. Still, circumstances may at some time restore some importance to those neglected ports.

The roads which belong to international and world communication enter on the plateau by one of the lines of access already described, namely, Nos. 1, 2 and 5 in Section III, coming from Europe either by way of the Bosphorus and Constantinople or by one of the harbours on the west coast. These roads traverse the plateau from west to east and pass off by one or other of several well-marked lines. The first of these is the historic pass of the Cilician Gates, which leads to central and southern Syria, to Egypt and Arabia, and also to Mesopotamia. The second is the line of the Roman trade route,

the western part of which is described in Section III, Route 1. The third goes up the Halys towards Erzerum.

(1) On the road through the Cilician Gates, see p. 39.

(2) The trade route, after reaching the depression in which the Maeander rises at Dineir (2,850 ft.), ascends a steep ridge of 500 ft. in height, and is then on the rim of the central plateau. It continues along several open long glens, especially Chöl-Ovasi and Oinan-Ova and Karamyk Ova, for about 73 miles through the Phrygian mountain region till it comes near Chai, a station on the German Anatolian Railway. Here it makes a rather sharp descent of 300 to 400 ft., which is simply the edge of a plateau elevated above the level of the great valley of Phrygia-Paroreios (Section I).

This valley is the axis of communication in the western part of the central plateau. Many roads traverse it, some throughout its entire length, others, as for example this one, entering it at some point in its length and continuing to traverse it. The line of the Roman trade route coincides with the line of the Baghdad Railway<sup>1</sup> from Chai (Julia-Ipsos) to Serai-Ini beside Ladik in Lycaonia (apart from the railway detour between Ak-Sheher and Ilghin). At this point the Baghdad Railway diverges to the south and south-west across the Boz-Dagh to Konia, while the trade route continues straight on to the east. It is now on the level plain (3,300 ft.), and wagons in summer-time can run in any direction. Any Turkish wagoner will take a line which chances to suit his own taste. He may have a wife and family at some village in the plain, and he takes the opportunity of paying a passing visit to the village. But, if there is no special temptation, most wagoners would go through Suwerik and Sultan-Khan (in the latter there is an excellent supply of water) to Aq-Serai (Archelais). Here all roads from west, north-west (Eski-Sheher and Angora), and south-west (Konia) meet and continue in much the same line

<sup>1</sup> This name is not technically accurate. The railway as far as Konia is the Anatolian; after Konia it is the Baghdad Railway; these sections are financially separate, but are worked under the same supreme management and belong to the same owners.

to Nev-Sheher, Indjesu and Kaisari. Suwerik (Psebila, near Verinopolis) on this road was important in ancient times and in the Middle Ages. So long as the commerce from the East continued to go to Smyrna it retained this importance. It is now a wretched village, with some few traces of its greatness in early Turkish times. Here the road from Angora to Konia crosses the trade route; here other minor roads meet; and here the 'Syrian Road' goes off by Genne (Kanna), Kara-Bunar (Hyde probably) to Eregli and the Cilician Gates. It may revive, if prosperity returns to Asia.

Kaisari is the great trade centre of the eastern part of the central plain, and a meeting-place of roads from all quarters, which diverge again in different directions. The trade route goes on to cross the Anti-Taurus, three days' journey away. There can be no doubt which of the seven passes over Anti-Taurus was used by the trade route. This was the pass of Quru-Chai, leading on to the Euphrates, and taking a line as nearly east as possible through Gurun (Gauraina) and Derende (Dalanda) and Malatia (Melitene).

(3) On the north, the exit to the east from the central plateau is by way of Sivas and up the valley of the Halys to Erzingian and Erzerum. This also has been an important route throughout history. There has been a great scheme promoted by a syndicate of French and Belgian capitalists, and strongly supported by the French Government, to secure the concession for a railway along this line. The concession had been sought by many groups, including one large and important American oil group. In the early part of the year 1914 it appeared as if the Franco-Belgian group had been successful. This route would naturally connect with Angora, Eski-Sheher, and the Bosphorus.

These three routes form the doors leading from Asia Minor proper to the main continent of Asia. They are indicated by nature, and nothing can interfere with their pre-eminence as ways of communication. Methods of travel, horse or wagon or railway, change, but these remain.

There are thus two lines of railway which traverse Asia

Minor, either in plan or in execution, and form part of the general Asiatic system of communication. A third line for a railway used to be spoken about, but seems to have passed out of the region of practical discussion. This road was intended to cross the eastern Taurus, coming from Angora and the west and passing through Kaisari, and crossing the Anti-Taurus by the same pass of Quru-Chai (see above) as the great trade route just described. It then diverged towards the south and had before it a choice of difficult routes across the mountains of the Eastern Taurus. An officer of engineers who had traversed all the passes across the Eastern Taurus used to assert as long ago as 1881 that, if ever a railway should cross the Taurus in this region, it would go by the pass leading from Yarpuz (Arabisos) and Albistan to Marash (Germanikeia), on the southern edge of the Taurus, one of the important cities of Northern Syria.

#### *(2) Roads on the Central Plain of the Plateau*

As has been mentioned, the roads across the central plain, although in summer time perfectly easy to traverse, so far as the going is concerned, present difficulties to large parties on account of the scanty supply of water and food for the horses. Hence the Byzantine military road from the Bosphorus by Eski-Sheher to the east and south-east did not cross the central plain,<sup>1</sup> but kept to the hilly country on the north or to the western and southern edge. But these roads across the plain are useful for commercial purposes and for small parties of travellers. Moreover, there are a certain number of large and abundant fountains of fresh water which rise in the plain: see Section I (4).

In 1883, in the northern part of the plain, within about 50 miles south-east from Eski-Sheher, a broad series of deep ruts, marking some definite road, was observed at various points. These wheel-marks, which evidently pointed to a considerable

<sup>1</sup> Professor Gelzer of Jena maintained that this great road for armies crossed the plain, and Professor Bury of Cambridge has championed his opinion.

amount of intercourse by wagon, were stated to mark the 'Araba Road' from Eski-Sheher to Konia. This road was described as crossing Emir Dagh by a low pass at Piribeili, entering Paroreios east of Aq-Sheher and the lakes, and there joining the great trade route by Ilghin and Ladik, across the Boz-Dagh.<sup>1</sup>

The ordinary definition of a wagon-road (*Araba-Yol*) is that it is easier and longer than the horse-road, but here, apparently, there was a wagon-road which was distinctly shorter than the corresponding horse-road. Further, although this road is so much shorter and evidently easier than any of the paths which lead from Eski-Sheher to Konia across the Northern Phrygian mountains, yet there is only very slight evidence that any military operations were ever conducted on its course, whereas the way through Paroreios has throughout the centuries formed the route for armies marching in either direction. Only when one comes down to the Arab period, one finds, in the eighth and ninth centuries, some allusions which indicate that this road was known to the Arab geographers, especially the soldier, Ibn-Khordadhbbeh. The only way in which roads across Asia Minor became known to the Arabs was because they were used in their raids, repeated year after year and decade after decade. It was, therefore, possible for the light moving squadrons of Arab cavalry, which made the raids, to use roads across the plain; and while it is difficult to disentangle the vague allusions made to those wars, yet it is clear that the Arabs were able to employ these paths to attack the Byzantine Empire, probably preferring them because they had not previously been guarded. Hence it became necessary for the Byzantine Emperors to guard those hitherto undefended lines of attack.<sup>2</sup> The defence was chiefly by means of castles perched on the high conical hills which are scattered here and there over the whole country.

Later observation revealed no reason why that *Araba Road* should not have continued on the eastern side of Emir-Dagh

<sup>1</sup> Like several other roads, it ceased to be used when the railway was built.

<sup>2</sup> See Section V.

in the plain right on to Ladiq, and so to Konia. That is the line of the drovers' road : see Section I (4). More thorough exploration of the great central plain showed that there was, evidently, a Roman road marked by milestones, which led from Angora direct to Konia, crossing Boz-Dagh by the pass of Egri-Baiyat. There is no difficulty along the whole course of this road, so far as the crossing either of hills or of streams is concerned.

This same pass serves equally as a connecting link in a very tempting route direct from Eski-Sheher to Eregli, going east of Kara Dagh and west and south of the Aq Göl (White Lake) west of Eregli.<sup>1</sup>

Further there is still a third route from Eski-Sheher, passing to the left of Boz-Dagh through Kara Bunar and so on to Eregli, but this road has to cross the river, with its marshy surroundings, which flows from the Plain of Nigde into the Aq Göl.<sup>1</sup> There is a causeway and bridge of the terrible old Turkish type across the river on this road, and the same causeway serves for the shorter road from Konia to Eregli by Kara Bunar. This route crosses at Suwerik both the great trade route and the road from Konia to Angora. Suwerik was, therefore, in former times an important meeting-place of roads, until in the last stage of Turkish degeneration it sank from being a city (ancient Psebila) to a ruinous village.

The fourth road leads south-east from Eski-Sheher by or near Sultan Khan, and so through Aq-Serai (Archelais), keeping north of Hassan Dagh, either on the one hand to Kaisari or on the other hand round the east side of the great mountain by a rather circuitous route to the plain of Nigde and the Cilician Gates.

The problem has always been to determine why these roads, which in summer are so easy, have played so little part in history or in trade communication. The reason must lie in the difficulties already described in respect of the water and food supply, and mud in the wet season. The dry

<sup>1</sup> Different from Aq-Göl, mentioned in Section I (4).

season lasts frequently for five or six months continuously, but at the beginning and the end rain may fall at any time and make the crossing of the plain impossible for wagons and troublesome for horsemen. Only on the two Roman roads—one north and south connecting Angora with Konia; the other the eastern trade route, leading from Aq-Sheher and Ladiq to Aq-Serai and Kaisari—is there any probability that there was ever a properly constructed roadway which would make the crossing of the plain possible even in the wet season. These two roads intersect one another at Suwerik (Psebila : see above).

After the conquest of the central plateau by the Turks about 1070, a new difficulty was introduced. These great plains were occupied by the nomads from Central Asia, who pass under the name of Turkmen, and are so called even by Byzantine historians in the twelfth and thirteenth centuries. Afterwards there were added to them various tribes of Kurds, who occupied the northern region, especially the hill country of Haimane south and south-west of Angora, and extended beyond into the level plain on the south and south-east. Finally, there were considerable bodies of Yuruks. These all regarded merchants as their natural prey, and scrutinized with suspicious eyes any traveller who came without proper safe-conduct from their own friends. The Seljuk Sultans of Konia, during the first two and a half centuries of the Turkish period, built a series of khans along the principal roads, which obviously were intended quite as much for the defence of trading parties as for their mere convenience. Their high walls, corner towers, and fortified gateway enclosed a considerable space and formed a sufficient fortress to defend any party against attacks by the nomads.

While these roads across the plain present the disadvantages which have been enumerated, yet during the dry season they are all easily traversed, and for parties using motor-cars, and able to traverse considerable distances at a time, they present excellent opportunities. There are a few points here and there where some difficulties would be encountered, but none

of these difficulties is such that it could not be done away with and the road opened to motor traffic with light work by a few trained men: only it would always be necessary to avoid falling into such a difficulty as the Ala-Dagh, already described, or coming athwart one of the small canyons which run down towards the Sangarios river.

## SECTION V

### OLD MILITARY OPERATIONS

THE military operations of past history are instructive, because they have been guided by the same practical conditions of communication and water-supply which still rule. They differ, however, in two respects from modern operations: (1) They were almost wholly confined to the season of fine weather. Ancient armies usually went into winter-quarters, and waited till the following spring; and purely citizen armies also were sometimes with difficulty prevented from going home for the important agricultural seasons. Once in the third century b.c. the army of a Greek king attempted to cross Taurus from Cilicia to the central plateau in winter, and was overwhelmed by snow: this must have been an untimely and unexpected snowstorm, either very early or very late. (2) The armies were small in numbers, with the exception of the numerous forces of the Persian kings. The operation of leading the great army of Xerxes in 481 b.c. across the plateau of Asia Minor must have involved preparation on a large scale, and shows what can be done in a region where water is so scarce. His line of march across the central plateau between Cappadocia and Dineir (Apameia-Celaenae) is unknown, but the water-supply must have been the determining factor; the country was cultivated and populous, and food was collected along the route as previously arranged. Doubtless the soldiers marched in smaller armies successively (though untrustworthy Greek

records speak of one army of a million, or millions, marching and subsisting as a single body of troops).

These two conditions of season and numbers would facilitate ancient operations. The marches were made in the dry season, and those hardy Orientals can go with little and simple food.

### *Early Wars*

Early wars are obscure in details. Croesus marched from Sardis perhaps by the Royal Road (Route 2 in Section III), when he crossed the Halys and destroyed a great empire, and Cyrus doubtless followed up the defeated army and marched on Sardis by the same road. Xerxes in the latter part of his advance towards Europe used Routes 1 and 3, by Dineir, Philadelphia, and the Dardanelles. The *Anabasis* of Xenophon describes the march of Cyrus the Younger from Sardis by Philadelphia to join the great trade route: the army went up to Dineir (Apameia-Celaenae), but then turned away sharp to the north-west, and then north to join the Royal Road as far as Afion-Kara-Hisar, and thence along Paroreios to Ilghin, Konia, Karaman, Tyana, and the Cilician Gates. The object of that retrograde movement from Dineir was to prevent suspicion as to the real purpose of his expedition: he pretended to be making a progress through his own satrapy, and having thus tried to lull suspicion he resumed his eastern march by another route. His friend the Queen of Cilicia joined him near Chai, accompanied him to Karaman, and then crossed Taurus by the Dumbelek Pass to Tarsus with her Cilician escort. The march of Cyrus has considerable analogies to, and differences from, that of Xerxes.

The campaign of A. D. 301 is instructive. Antigonus lay for the preceding winter at Dineir (Apameia-Celaenae). His opponents were Lysimachus coming from Thrace and Seleucus from Syria, singly quite unfit to match his power, but stronger than he, if united. In the spring Antigonus moved up the central trade route to Chai in order to throw himself between his enemies, who would march along the valley of Paroreios

from opposite quarters and meet in the plain near Chai. He advanced too late; when he came near Chai he found that Lysimachus and Seleucus had joined forces; and the decisive battle took place in the plain at Ipsus beside Chai. Apparently all the movements on each side were normal, and were expected by the other; but Antigonus expected his enemies to wait for the usual season before beginning operations, whereas they began earlier, and were probably favoured by early hardening of the roads, so that they were not impeded by mud, and thus arrived sooner than Antigonus calculated.

Various old military operations on the north side of the plateau moved along the lines running east and west between the double lines of the mountain rim (see Sections I (1); III, 6; a formation special to that side of the main plateau). The chief route is that which runs east from Boli and down the valley of the Gök-Irmaq (Amnias) by Tash-Köprü (Pompeipolis), across the Halys by Vezir-Köprü to Amasia and Niksar. The rise of the Pontic kings, especially Mithridates, made this line very important in the second and first centuries B.C.; and Pompey founded the city which bore his name in order to guard the route. There was also a route by Boli and Changri (Gangra) or Tossia (Dokeia), which is most conspicuous in the wars of the Seljuk Turkish princes of the north against the Byzantine emperors of the twelfth to the fourteenth centuries. Both roads, however, have always their own importance in every period of history.

### *Roman Defences*

The Roman defences on the east are better known; they consisted chiefly in a line of military stations along the Euphrates connected by a military road. This line was approached by the two great routes from the west, that of Sivas and the Halys (Route 8) leading to the great military camp at Satala, where the XVth Legion (with auxiliary troops) was stationed, and the central trade route (1) leading to Malatia

(Melitene, where Legion XII was stationed). A cross-road from Yarpuz (Arabissos) to Sivas completed the system, which was devised to guard against the attacks of a fairly civilized and organized enemy, the Parthians of Mesopotamia and Persia. The Romans maintained few other troops in Asia Minor, only a few auxiliaries, who acted rather as police than as soldiers (for the Romans never had any proper police force). The defence of this frontier was conducted more from Syria than from Asia Minor, and any additional troops required to operate in Armenia and towards the 'Caspian Gates' were landed at a Syrian harbour. There were therefore few military operations across Asia Minor under the Empire, until the growing disorganization and weakness of government, and the helplessness of a civilian population accustomed to rely wholly on the protection of a small professional army, exposed the country to inroads from Central Asia. Civilization nursed in comfort and unused to defend itself was helpless before these attacks.

The constant danger due to the pressure of barbarous Asiatic tribes on the eastern frontier of the Roman or Byzantine Empire from the third century onwards, and their incursions during times of Imperial weakness, when they ravaged the whole of Asia Minor to the west coast, led gradually to the reorganization of the defences in a form similar to, yet different from, the Roman system. The Roman plan of military roads continued; these were simply the administrative roads improved and defended by forts or fortified cities, with attention to the provisioning of marching armies (which sometimes necessitated slight changes of line, in order to touch the great fountains, where encampments could be made). This defensive system can be traced back probably to Justinian I (A.D. 527-63), because two important cities on the lines of road bear his name, Justinianopolis; but it was modified and improved, especially by the Iconoclast emperors and by the Macedonian dynasty, whose defensive invention was stimulated through the necessity imposed by annual Arab attacks between A.D. 660 and 960.

*The Arabs and the Byzantine Empire*

The long wars between the Arabs and the Byzantine Empire (except in the few attempts made by sea, culminating in the two great sieges of Constantinople, 668 and 716) were waged along the recognized lines from and to Baghdad. The Arabs held Malatia for a long time, advancing to it either across the eastern Taurus by Marash (Germanikeia) or across the Euphrates along the eastern trade route (see p. 31). Cilicia was held by them for three centuries until Nicephorus reconquered it about 960; and Tarsus became a centre of their military strength. Harun-er-Rashid refortified Tarsus about 800. The story of the castle of black marble and the lake peopled by transformed fishes of four colours, the four religions of the inhabitants of an enchanted city, which is told near the beginning of the *Arabian Nights*, has its scene along the road of the Cilician Gates between Tarsus and Tyana, and is a fanciful distortion of real journeys and military raids.

The Arabs usually advanced in large armies across this pass, and the defence centred on the castle of Loulon at the northern end, east of Ulu Kishla. So long as this castle was held by the Romans, early news of Saracen invasions was flashed to Constantinople by a line of beacon fires; and the garrison of the castle was a thorn in the side of the invading army. The castle changed owners several times, being captured and recaptured. New frontier strategy was developed during the wars. Amorion became an important military centre, which implies that invasions were often made along the roads that cross the central plains (see Section IV, 2). These had to be met by corresponding operations along the same lines by the Byzantine troops, and the march of Constantine, 791, by Anhydroi Pyrgoi (Waterless Towers) indicates the character of the country traversed. Castles were built on points commanding the plains of the central plateau. The many volcanic peaks which protrude through the

limestone plateau offered situations for garrison defence which suited the special needs of that period. Those Arab raiders were very dangerous in unexpected assaults ; they appeared with lightning speed, for most raids were made with horsemen only ; but, if they failed to carry a city or fortress by a sudden attack, the Arabs were unskilled in, and not provided for, siege operations. Thus those castles on high peaks difficult to climb were the form of defence on which the Byzantine troops relied ; but they had the great disadvantage of being incapable of withstanding a blockade, because they could not be sufficiently supplied with water ; such water as was stored during the rains in the large cisterns could hardly be sufficient to last till the next season's rains came to refill them. The supply of food also constituted a difficulty in the defence. Still the advantages were so great that all the many known garrison defences constructed during this period are of the same class.

The light Arab troops also developed a system of attack across the other Taurus passes, which required a system of defence under the direction of the Kleisourarch, commander of the Kleisourai (passes) of the Taurus, and of the general in command of the Anatolic Thema, i. e. the troops garrisoning the country from Eski-Sheher on the north to Yalovach, Konia, and Karaman (Laranda). The details recorded about the actual raids are so scanty as to give little conception of the importance of the eastern Taurus passes in those wars ; but the treatise on Nicephorus' frontier warfare shows that every pass from Selefke (Seleukeia) on the west to Malatia on the east was a weak point where attack might be expected, including even the difficult tracks over Taurus from Sis and East Cilicia generally to the country south of Kaisari.

After the Arab wars were ended by the reconquest of the debatable land and the enlargement of Byzantine power and territory, A. D. 960, invasions by the barbarian tribes of Central Asia, of Turkish stock, came along one of the three routes described in Section III (p. 31). The Seljuk Turks and the Mongols came by Sivas, which became one of the

brilliant Seljuk capitals. The Mongol capture and sack of Sivas remains one of the horrors of history, hidden fortunately in the obscurity of the arid pages of a Byzantine historian. From Sivas Tamerlane advanced to Angora by the road described above, and destroyed for a time the rising power of the Ottoman Turks under Bayazid in the battle near that city (A. D. 1401).

### *The First Three Crusades*

The first three Crusades chose the land route from central or western Europe to the Holy Land. The first, in A. D. 1099, crossed the Bosphorus, and went up by the line of the railway (Route 5 in Section III). The crusaders diverged for the moment to capture Nicaea, which had been captured by the Seljuk Turks ; but returned to the main route (as no other existed). They fought a great battle where the road descends from the mountain rim into the plain a few miles north-west of Eski-Sheher (Dorylaion). Their subsequent marches were ill-directed and sporadic. Some of them appeared at Yalovach (Antioch, the Pisidian) ; some crossed by the pass of the Cilician Gates ; some reached Guksun (Cocussos) beyond the Anti-Taurus. They had no knowledge of Anatolian topography ; and they were intentionally misled by Greek guides supplied by the treacherous Byzantine Emperor Alexius. Moreover, they could not as a single undivided army find food in sufficient quantity in a country which had already suffered for 130 years from Turkish rule.

The Second Crusade marched in two divisions (A. D. 1146). The Germans under Conrad attempted to ascend the modern railway line (like the preceding crusaders) ; but they were almost annihilated by the Turks. The French, under many princes of the west from Aquitaine and Provence to Belgium, marched along Route 3 (Section III), and then by Ephesus and up the Maeander valley. Their crossing of that river in the face of the Turkish army assembled on the opposite bank was one of the most brilliant feats in history ; it was made ' where ford there was none '. In the narrow pass just above

Denizli on the road to Adalia, they were nearly defeated by the Turks ; but they forced a passage at heavy cost, and found their way to Adalia and so by ship to Palestine.

*The Wars of the Comneni*

The wars of the Comneni against the Seljuk Turks in the eleventh and twelfth centuries were fought in the western part of the plateau, which had passed almost entirely into Moslem hands in A. D. 1071-4. Alexius advanced towards Konia, but turned to retreat a few miles south-east of Aq-Sheher, and at last won a victory, or at least saved his retreat from becoming a rout, in a battle fought in the plain five or six miles east of Afion-Kara-Hisar. The whole of this campaign was fought along the Paroreios valley, and Alexius must have advanced from Eski-Sheher (Dorylaion).

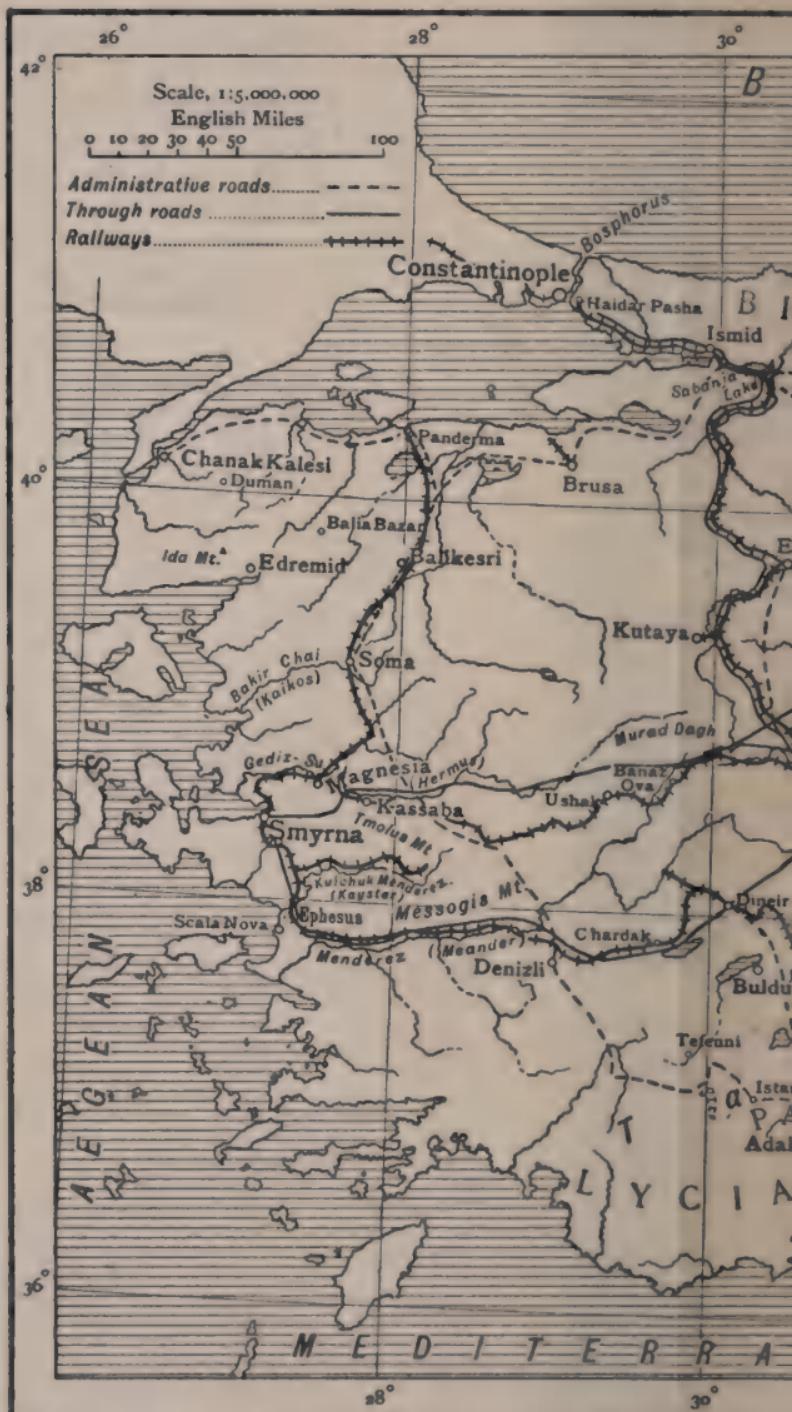
His son, John Comnenus (1117-42), a brave and able general and emperor, conducted his wars along the trade route, marching by Philadelphia or by Ephesus. He forced the Seljuks back from Denizli, which they had held for some years, to Dineir ; and finally captured the strong castle of Olu-Borlu. His son and successor, Manuel, in the beginning of his reign led an army from Cilicia to Constantinople. It is mentioned that he passed within sight of Konia. This means that he must have marched by Karaman (Laranda), and kept northwards near the Phrygian hills and along Paroreios. The reason for his choosing a route close to the Turkish capital, Konia, must have been consideration of the best water-supply. He had a strong army, which the Turks did not venture to attack, while he did not feel able to besiege Konia. The memory of that Turkish hesitation played its part in leading him into the rashness of his last campaign in 1176, when with a magnificent army consisting of the flower of European and Greek soldiery, Norman nobles, Varangian guards from Britain, and everything that could be gathered during thirty-six years of a warlike reign, he marched by Philadelphia and Dineir against Iconium. At Dineir he

diverged from the trade route, and advanced by Olu-Borlu and the north coast of the double lake, Hoiran and Egerdir (the Limnai). Pushing on up the open pass that leads to Yalovach, and refusing to listen to counsel and clear away the Turks from the low hills on the north, he marched on with the enemy gathered on his unguarded left flank. The vanguard, in which Manuel himself rode, crossed a slight elevation beyond Kundanlu, and disappeared from view. Then came the loaded wagons, carrying baggage and equipment. A wagon broke down, and caused a jam. The rear marched up. No one called a halt. A helpless crowd, without room to use their swords, were caught by the sudden attack of the light Turkish horse. There was no battle, but only a massacre, while Manuel with the van marched gaily on, knowing nothing, until he was attacked on rear and flanks by the Turks. This battle sealed the doom of the Byzantine Empire, which had been reviving under the crafty Alexius and the honest and able John Comnenus, and even under Manuel, who was bold and warlike.

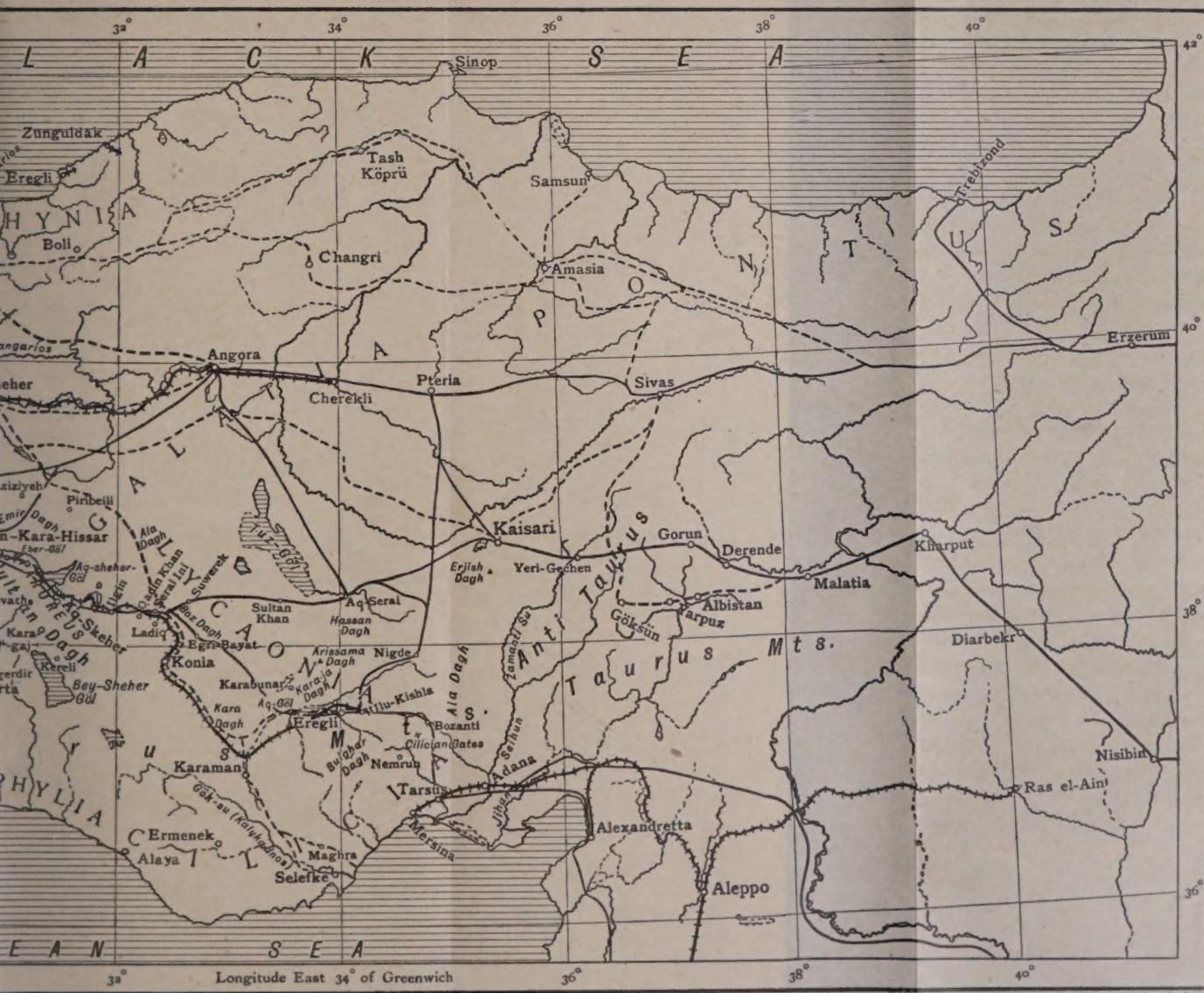
### *Barbarossa*

In 1190 Barbarossa led his army of the Third Crusade by the same path, and saw the relics of that terrible defeat. The German Emperor did not go on to Yalovach, seeing the great Turkish army gathered to resist him ; but suddenly diverged from this road and took the trade route by Chai and Aq-Sheher, along the great valley of Paroreios. At Konia he defeated the Turks and occupied the city. Then, advancing by Karaman, he crossed Taurus by Said Pasha's road (Section III, 13) and perished in the waters of the Gök-Su (Kalykadnos).

# Sketch Map of A



# Minor, showing approximate course of Roads and Railways



Longitude East 34° of Greenwich





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